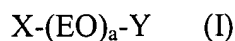


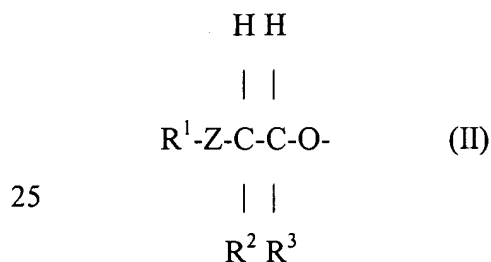
## Claims:

1. A defoaming agent for cementitious compositions, obtained by mixing at least one polyethylene oxide derivative and at least one nonionic defoaming agent, wherein the polyethylene oxide derivative has at one end a hydrophobic group with at least one of a  
5 branched structure and an unsaturated bond, and at the other end an anionic group.
2. The defoaming agent according to claim 1, wherein the unsaturated bond is a double bond.
3. The defoaming agent according to claim 1 or claim 2, wherein the polyethylene oxide  
10 derivative is a compound expressed by formula I:



wherein X is a hydrophobic group comprising at least one of a branched structure and an  
15 unsaturated bond; Y is an anion group; EO is  $-\text{CH}_2\text{CH}_2\text{O}-$  and a is an integer from 6 to 100.

4. The defoaming agent according to claim 3 wherein a is an integer from 15 to 60.
5. The defoaming agent according to any one of claims 1 to 4, wherein the hydrophobic group  
20 comprising at least one of a branched structure and an unsaturated bond is expressed by formula II:

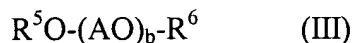


wherein Z is O or an amine;  $\text{R}^1$ ,  $\text{R}^2$  and  $\text{R}^3$  are each independently alkyl or phenyl, naphthyl, alkenyl, alkylene oxide with 2 to 4 carbon atoms or any derivatives thereof, and  $\text{R}^2$  and  $\text{R}^3$  may  
30 also be each independently H, with the proviso that  $\text{R}^1$  is not alkyl when  $\text{R}^2$  and  $\text{R}^3$  are both H.

6. The defoaming agent according to any one of claims 1 to 5, wherein the anion group is -SO<sub>3</sub>M, -(CH<sub>2</sub>CH<sub>2</sub>)OSO<sub>3</sub>M, -R<sup>4</sup>COOM (wherein R<sup>4</sup> is -C<sub>m</sub>H<sub>2m</sub>- (in which m is an integer 10 > m > 0 and preferably 1 or 2) or a phenyl group), -PO<sub>3</sub>M or -CO(CH<sub>2</sub>)<sub>n</sub>COOM (wherein M is Na salt, K salt, Ca salt, Mg salt, NH<sub>4</sub> salt or H, n is 2 or 3).

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7. The defoaming agent according to any of the claims 1 to 6 wherein the nonionic defoaming agent is expressed by formula III:



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wherein R<sup>5</sup> and R<sup>6</sup> are each independently an aliphatic hydrocarbon with 10 to 25 carbon atoms, an alkyl group with 1 to 5 carbon atoms or H; AO is a block polymer and/or a random polymer constituted of alkylene oxide with 2 to 3 carbon atoms and b is an integer from 5 to 500.

15 8. The defoaming agent according to any one of claims 1 to 7 obtained by mixing the polyethylene oxide derivative and the nonionic defoaming agent at a ratio in the range of 20:80 to 60:40 (wt%).

9. The defoaming agent according to claim 7, wherein the nonionic defoaming agent, when  
20 converted to polyethylene glycol, has a weight average molecular weight in the range from 300 to 30,000 and the weight ratio of the ethylene oxide in said molecular weight is in the range of 5 to 80 %.

10. A water-reducing composition comprising a blend of a polycarboxylate-type high  
25 performance air-entraining (AE) water-reducing agent and a defoaming agent according to any one of claims 1-9.

11. A method of defoaming a cementitious composition by the addition to the composition of a defoaming agent according to any one of claims 1-9.